

1-4 The student will demonstrate an understanding of the properties of Earth Materials. (Earth Science)

Key Concepts: rocks, sand, soil, water, physical appearance, color, texture

Supporting Content Web Sites

FOSS

<http://www.fossweb.com/modulesK-2/PebblesSandandSilt/index.html>

This site has an interactive game for students to search for earth materials in the everyday world, a photo gallery, related websites, and an Ask a Scientist section.

1-4.1, 1-4.6

USGS

<http://education.usgs.gov/>

This site has educational resources from the U.S. Geological Society, including online resources, maps, and lessons.

1-4.1 through 1-4.6

Note: Some information too advanced for students; appropriate for teacher background information.

Suggested Literature

Firestone, M. (2005). *First Facts Materials: Rock*. Manheto, MN: Capstone Press.

ISBN: 0736826513

Lexile Level: Unknown

This book covers the types of rocks, how rock is harvested and what rock is used for.

1-4.1, 1-4.2, 1-4.6

Oxlade, C. (2002). *Materials, Materials, Materials: Rock*. Chicago: Heinemann Library.

ISBN: 1588105857

Lexile Level: Unknown

This book discusses where rock comes from and how it is used.

1-4.1, 1-4.2, 1-4.6

Rosinsky, N. (2003). *Rocks: Hard, Soft, Smooth, and Rough*. Minneapolis: Picture Window Books.

ISBN: 1404800158

Lexile Level: Unknown

This book helps students learn to observe and classify rocks.

1-4.1, 1-4.2

Rosinsky, N. (2003). *Dirt: The Scoop on Soil*. Minneapolis: Picture Window Books.

ISBN: 1404800123

Lexile Level: Unknown

This book covers the nature, uses, and importance of soil, as well as the many forms of life it supports.

1-4.1, 1-4.3, 1-4.6

Oxlade, C. (2002). *Materials, Materials, Materials: Soil*. Chicago: Heinemann Library.
ISBN: 1588105873

Lexile Level: Unknown

This book discusses what soil is made of, what living things are found in soil, and how soil can be used.

1-4.1, 1-4.3, 1-4.6

Richardson, A. (2002). *Soil*. Manheto, MN: Capstone Press.

ISBN: 0736809546

Lexile Level: Unknown

This book covers what soil is, the different types of soil, animals that make their home in the soil, and why plants need soil.

1-4.1, 1-4.3, 1-4.6

Olien, R. (2005). *First Facts Water All Around: Sources of Water*. Manheto, MN: Capstone Press.

ISBN: 0736837000

Lexile Level: Unknown

This book discusses the many places water can be found, such as oceans, seas, lakes, ponds, rivers, and streams.

1-4.1, 1-4.5

Oxlade, C. (2004). *How We Use Rock*. Chicago: Raintree.

ISBN: 1410905977

Lexile Level: Unknown

This book covers the many uses of rock in the everyday world and the various properties that make them so useful.

1-4.6

Ballard, C. (2005). *How We Use Soil*. Chicago: Raintree.

ISBN: 1410908976

Lexile Level: Unknown

This book covers soil's properties and the many ways it can be used.

1-4.3, 1-4.6

Sheehan, T. (2005). *City Science: Blocks of Rocks*. Vero Beach, FL: Rourke Publishing.

ISBN: 1595154116

Lexile Level: Unknown

This book looks at the common building materials of stone, cement, and brick. It takes students through each part of the process, starting with the quarry and ending with construction of streets, buildings, and statues.

1-4.6

Suggested Data Streaming Video

Rocks: The Solid Earth Materials #1

ETV Streamline SC

This video discusses where rocks come from and many of their properties. Some segments go into more detail than is needed at this age level, but viewing individual segments makes things very choppy and disjointed.

20:00

1-4.1, 1-4.2, 1-4.6

This is Our World

“Land and Water”

ETV Streamline SC

This segment of the video looks at a map of the world and identifies the land and water.

“Land and Water” - 1:12 to 4:07

1-4.5

Uses of Rocks and Minerals

“Building Materials and Glass,” “Transportation,” “Rocks that Don’t Need to be Processed”

ETV Streamline SC

These segments examine how rocks are mined, processed, and constructed into objects used in our everyday life.

“Building Materials and Glass” – 2:30 to 8:34, “Transportation” – 8:35 to 9:37, “Rocks that Don’t Need to be Processed” – 11:54 to 12:38

1-4.6

Getting to Know Soil

“Soil Properties and Types”

ETV Streamline SC

This segment examines the properties and types of soil, including sand, clay, and loam.

“Soil Properties and Types” – 4:16 to 13:55

1-4.1, 1-4.3

Junior Environmental Scientist: Our Special Place in Space

“How Special is Our Water?”

ETV Streamline SC

This segment discusses the locations and properties of water on Earth.

“How Special is Our Water?” – 7:16 to 9:18

1-4.1, 1-4.4, 1-4.5

Water: A First Look

“Where is the Earth’s Water?”

ETV Streamline SC

This segment discusses the different places that water is found on the Earth.

“Where is the Earth’s Water?” – 0:46 to 2:48

1-4.1, 1-4.5

Career Connections

Geologist

Geologists study the materials of the Earth. They make observations of the different earth materials and conduct experiments with them.

Soil scientist

Soil scientists study soils and their properties.